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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,051	07/30/2003	Steve Gronemeyer	ST02009CIP	9974

7590
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EXAMINER

NGUYEN, DUC M

ART UNIT	PAPER NUMBER
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2618

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10/21/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/632,051	Applicant(s) GRONEMEYER ET AL.	
	Examiner DUC M. NGUYEN	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 22-33 is/are rejected.
- 7) ☒ Claim(s) 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to applicant's response filed on 8/11/08. Claims 1-33 are now pending in the present application.

Appeal Brief

In view of the Appeal Brief filed on 8/11/08, PROSECUTION IS HEREBY REOPENED. A new ground of rejection set forth below for better prosecution of the application.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims **1-13** are rejected under 35 U.S.C. 103(a) as being unpatentable by **Kerth et al** (US 2002/0132648) in view of **Molnar** (US 2002/0142741).

Regarding claim **1**, **Kerth** discloses a radio frequency (RF) to baseband interface providing power control over an R.F section that processes RF signals and that is coupled to a baseband section that processes baseband signals, the interface comprising:

- a bi-directional message interface (see Figs. 9B regarding bidirection signal 960) for communicating a power control message from the baseband section to the RF section (see Figs. 9A, 9B, paragraphs [0093]-[0097] and [103]-[0105] regarding the power down PBNB signal which is in one of a power-up state (normal mode, see [0095]) and a power-down state (standby mode, see [0094]); and
- a data interface for communicating data from the RF section to the baseband section (see paragraphs [0108]-[0111]).

However, **Kerth** fails to teach during the standby mode (i.e, power-down state, PBNB = 0), the supply voltage of the RF section are shut down for power saving. However, in an analogous art, **Molnar** teaches a digital serial interface for a baseband digital control signal, wherein during the stand-by mode, the supply voltage to components of the RF section are shut down for power saving (see Fig. 3, Abstract, [0010, 0047, 000057-0060]. Since one skilled in the art would recognize the benefit of

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power saving during standby mode, it would have been obvious to one skilled in the art at the time the invention was made to modify **Kerth** for intermittently shut down supply voltage to components of the RF section during stand-by mode as suggested by Molnar, thereby providing a power control message as claimed (see Molnar [0058]), for prolonging battery time of the wireless device.

In an alternative way, **Molnar** would teach all the claimed limitations (see Fig. 3, Abstract, [0010, 0047, 000057-0060] regarding serial interface SI 332) except for a bi-directional message for the serial interface 332. However, in an analogous art, **Kerth** teaches a bi-directional message interface (see Figs. 9B regarding bi-direction signal 960) for communicating control signals (i.e, data, status, information, flag and configuration signals) between the baseband section and the RF section (see [0097]). Since one skilled in the art would recognize the benefit of the bi-directional message interface in **Kerth**, it would have been obvious to one skilled in the art at the time the invention was made to modify **Molnar** for providing a bi-directional message to the serial interface in Molnar as well, for utilizing advantages of two way communication such as communicating digital control signals between the baseband section and the RF, for exchanging data, status, information, flag and configuration signals according to the current operation mode of the transceiver (i.e, standby mode, receive mode or transmit mode), for further improving the performance of the transceiver device (i.e, maintain shut down supply voltage to components of a receiver circuit while in transmit mode, or maintain shut down supply voltage to components of a transmitter circuit while in receive mode for further conserving power consumption of the battery).

Therefore, the claimed limitations are made obvious by **Kerth** and **Molnar**, noting that Kerth and Molnar both direct to a digital serial interface for controlling the operation of a wireless communication device.

Regarding claims **2, 4, 8, 11, 13**, the claims are rejected for the same reason as set forth in claim 1 above. In addition, **Molnar** would disclose a plurality of power control bits (see [0072] regarding each data latch receives one bit of data from serial interface) individually specifying power states for a plurality of pre-selected circuitry in the RF section (see [0070-0072] regarding modulator, converter and synthesizer), in order to control an operating voltage for each component individually.

Regarding claim **3, 12**, the claims are rejected for the same reason as set forth in claim 1 above. In addition, **Kerth** and **Molnar** both disclose the power state is one of a power-up state (normal mode, see Kerth, [0095] and Molnar [0060]) and a power-down state (standby mode, see Kerth, [0094] and Molnar [0059]).

Regarding claim **5**, the claim is rejected for the same reason as set forth in claim 1 above. In addition, **Molnar** discloses the pre-selected circuitry is at least one of a frequency divider, oscillator, and amplifier (see Molnar, [0072] which would include at least one oscillator as claimed).

Regarding claims **6, 9**, the claims are rejected for the same reason as set forth in claim 1 above. In addition, **Kerth** and **Molnar** both disclose the message interface is a serial message interface (see Kerth [0094] and Molnar [0047]).

Regarding claim **7, 10**, the claims are rejected for the same reason as set forth in claim 1 above. In addition, **Kerth** discloses the message interface comprises a

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message-in signal line, a message-out signal line and a message clock signal line (see [0094] regarding data-in, data-out and serial clock).

3. Claims **14-20, 22-33** are rejected under 35 U.S.C. 103(a) as being unpatentable by **Kerth** in view of **Molnar** and further in view of **Syrjarinne et al** (US 2003/0107514).

Regarding claim **14**, the claim is rejected for the same reason as set forth in claim 1 above. However, **Kerth** and **Molnar** fail to disclose a GPS receiver. However, **Syrjarinne** discloses a GPS receiver (see Abstract). Since incorporating a GPS receiver in a mobile phone is well known in the art (see **Syrjarinne**, [0013]), it would have been obvious to one skilled in the art at the time the invention was made to further modify **Kerth** and **Molnar** to incorporate a GPS receiver in **Kerth** and **Molnar** as well, for navigation purpose. Since **Syrjarinne** also suggests a low power standby mode (power down) for the GPS receiver for power saving (see [0029-0030]), it is clear that **Kerth** and **Molnar** as modified in view of **Syrjarinne** would obviously teach the supply voltages to components of the GPS receiver would be intermittently/periodically shut down during the stand-by mode as suggested by both **Molnar** and **Syrjarinne**, in order to conserve power consumption of the battery.

Regarding claim **15**, the claim is rejected for the same reason as set forth in claim 14 above. In addition, **Kerth** discloses the message interface comprises a message-in signal line, a message-out signal line and a message clock signal line (see [0094] regarding data-in, data-out and serial clock).

Regarding claim **16**, the claim is rejected for the same reason as set forth in claim 14 above. In addition, **Molnar** would disclose a plurality of power control bits (see [0072] regarding each data latch receives one bit of data from serial interface) individually specifying power states for a plurality of pre-selected circuitry in the RF section (see [0070-0072] regarding modulator, converter and synthesizer), in order to control an operating voltage for each component individually.

Regarding claim **17**, the claim is rejected for the same reason as set forth in claim 14 above. In addition, **Kerth** and **Molnar** both disclose the power state is one of a power-up state (normal mode, see Kerth, [0095] and Molnar [0060]) and a power-down state (standby mode, see Kerth, [0094] and Molnar [0059]).

Regarding claims **18, 26, 32**, the claims are rejected for the same reason as set forth in claim 14 above. In addition, **Kerth** and **Molnar** in view of **Syrjarinne** would disclose the power control message comprises a plurality of power control bits individually specifying power states for a plurality of pre-selected circuitry in the RF section as claimed (see **Syrjarinne** [0014], [0037], [0039] through [0042] and **Molnar** [0072] regarding each data latch receives one bit of data from serial interface).

Regarding claim **19**, the claim is rejected for the same reason as set forth in claim 14 above. In addition, **Molnar** discloses the pre-selected circuitry is at least one of a frequency divider, oscillator, and amplifier (see Molnar, [0072] which would include at least one oscillator as claimed).

Regarding claim **20**, the claim is rejected for the same reason as set forth in claim 14 above. In addition, **Kerth** discloses the message interface is a serial message

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interface which includes a data clock signal line and data bit signal line (see Figs. 9-10 and [0094]).

Regarding claims **22-33**, the claims are interpreted and rejected for the same reason as set forth in claims 14-20 above, wherein it is clear that the baseband processing section in **Kerth** and **Molnar** would obviously comprise at least one address, data, and control line for communicating with a digital device (DSP) as claimed (see Kerth [0032] and Molnar [0046-0047]).

Allowable Subject Matter

4. Claim 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to

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be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims **1-33** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-60 of copending Application No. **10/369853** in view of **Molnar** (US 2002/0142741).

Regarding claims 1-33, **10/369853** teaches a GPS receiver with a baseband serial interface for controlling RF power section which would include all the claimed limitations (see claims 1-60) except for explicitly teach the power control message is associated with power consumption of the RF section. However, in an analog art, **Molnar** teaches a digital serial interface for a baseband digital control signal, wherein during the stand-by mode, the supply voltage to components of the RF section are shut down for power saving (see Fig. 3, Abstract, [0010, 0047, 000057-0060]. Since one skilled in the art would recognize the benefit of power saving during standby mode, it would have been obvious to one skilled in the art at the time the invention was made to modify **10/369853** for intermittently shut down supply voltage to components of the RF section during stand-by mode as suggested by Molnar, thereby providing a power control message as claimed, for prolonging battery time of the wireless device.

This is a provisional obviousness-type double patenting rejection.

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7. Claims **1-33** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-60 of copending Application No. **10/544,865** in view of **Molnar** (US 2002/0142741).

Regarding claims 1-33, **10/544,865** teaches a GPS receiver with a baseband serial interface for controlling RF power section which would include all the claimed limitations (see claims 1-60) except for explicitly teach the power control message is associated with power consumption of the RF section. However, in an analog art, **Molnar** teaches a digital serial interface for a baseband digital control signal, wherein during the stand-by mode, the supply voltage to components of the RF section are shut down for power saving (see Fig. 3, Abstract, [0010, 0047, 000057-0060]. Since one skilled in the art would recognize the benefit of power saving during standby mode, it would have been obvious to one skilled in the art at the time the invention was made to modify **10/544865** for intermittently shut down supply voltage to components of the RF section during stand-by mode as suggested by Molnar, thereby providing a power control message as claimed, for prolonging battery time of the wireless device.

This is a provisional obviousness-type double patenting rejection.

Response to Arguments

8. Applicant's arguments with respect to claims 1-33 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

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9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See the attached PTO-892.

10. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(571) 273-8300 (for **formal** communications intended for entry)

(571)-273-7893 (for informal or **draft** communications).

Hand-delivered responses should be brought to Customer Service Window,
Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry concerning this communication or communications from the examiner should be directed to Duc M. Nguyen whose telephone number is (571) 272-7893, Monday-Thursday (9:00 AM - 5:00 PM).

Or to Nay Maung (Supervisor) whose telephone number is (571) 272-7882.

/Duc M. Nguyen/

Primary Examiner, Art Unit 2618

Oct 15, 2008